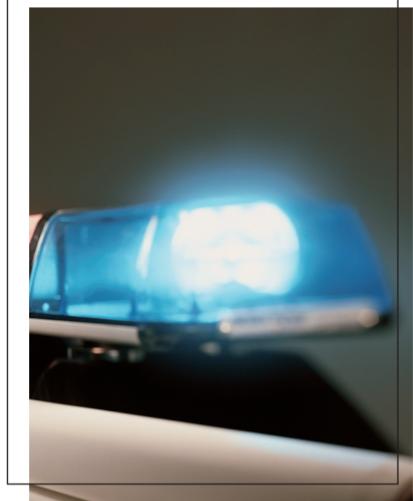




MOTOROLA



When printed by Motorola

*Cleartone CM5000  
TETRA Mobile Repeater/Gateway  
Feature User Guide*



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*For technical support on this product call the helpdesk on  
0044 1256 484433 during normal office hours.*



*In case of a defect device please contact your local dealer.*

*vi*

# General Information

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## Safety Information

- This terminal meets the applicable safety standards if used as prescribed. All operating and safety instructions are to be followed carefully.



**CAUTION:** *Before using this product, read the operating instructions for safe usage contained in the Product Safety and RF Exposure booklet (Motorola Publication part number 6866537D37 for Europe, Middle East and Africa) enclosed with your terminal.*

- Motorola recommends the usage of Motorola approved accessories only.
- Only specialized workshops should be contacted for installation, maintenance and repair work.
- Keep this **User Guide** and the **Product Safety and RF Exposure booklet** in a safe place and make it available to other operators, and in case, that the terminal is passed on to other people.

## Copyright Information

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MOTOROLA and the Stylized M Logo are registered in the U.S. Patent and Trademark Office. All other product or service names are the property of their respective owners.

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States and other countries preserve for Motorola certain exclusive rights for copyrighted computer programs including, but not limited to, the exclusive right to copy or reproduce in any form the copyrighted computer program. Accordingly, any copyrighted Motorola computer programs contained in the Motorola products described in this manual may not be copied, reproduced, modified, reverse-engineered, or distributed in any manner without the express written permission of Motorola. Furthermore, the purchase of Motorola products shall not be deemed to grant either directly or by implication, estoppel, or otherwise, any license under the copyrights, patents or patent applications of Motorola, except for the normal non-exclusive license to use that arises by operation of law in the sale of a product.

## Product Specific Information

- Max RF Power 3 Watts
- Max. Speaker Load 10 Watts at 4 Ohms
- Antenna Impedance 50 Ohms
- Ambient Temperature Range - 20 °C to + 60 °C



**WARNING:** *If the terminal is in service the surface temperature can rise up to 70 °C.  
Do not touch the hot surface*

- Operating Time Continuous / Intermittent



**NOTE:** *In general, the terminal transmit and receive time (operating cycle time) is determined by the communication system. On overload, respectively on extensive use beyond the systems specifications at high ambient temperatures, the terminal is protected by its thermal control, which cuts down the RF output power, thus reducing the terminal coverage range.*

## Disposal Information

### European Union (EU) Waste of Electrical and Electronic Equipment (WEEE) Directive



The European Union's WEEE directive requires that products sold into EU countries must have the crossed out trashbin label on the product (or the package in some cases). As defined by the WEEE directive, this cross-out trashbin label means that customers and end-users in EU countries should not dispose of electronic and electrical equipment or accessories in household waste.

Customers or end-users in EU countries should contact their local equipment supplier representative or service centre for information about the waste collection system in their country.

# Getting Started

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This manual contains everything you need to know about how to operate your CM5000 Repeater. If you have any questions regarding the operation and care of this mobile device please contact your local dealer.

You can display different languages on your mobile, for more information please refer to the relevant section in this handbook.

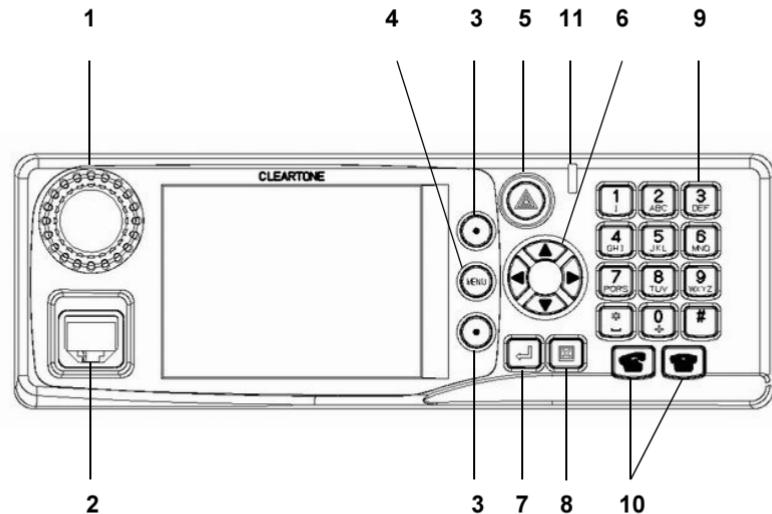
## How to Use this Guide

This guide describes the CM5000 features that are set up and pre-programmed at the factory.

Your Service Provider or your organisation may have customised your CM5000 to optimise its use for your individual needs. Check with your Service Provider or organisation to find out the differences from this guide.

Throughout the text in this publication, you will notice the following special notations used to highlight certain information or items:

Example	Description
 or <b>Select</b>	Key presses are shown as a key symbol or in bold print for soft key functions.
<b>More... &gt; Networks &gt; TXI Mode &gt; Activate</b>	Indicates navigation in menu items.
<b>Contacts</b>	Highlighted text indicates the selection.
<b>✓On</b>	Indicates the active setting.
<b>Status Delivered</b>	Information appearing on the CM5000 display is shown in special print.
<b>&lt;User Defined&gt;</b>	Indicates a prompt or message configured by your Service Provider.
	A Note contains additional information which is relevant to the item feature.



Item	Description
1	<b>Rotary Knob</b> Used to turn the radio ON/OFF and to adjust volume level.
2	<b>Microphone Connector</b> Used to connect a fist microphone in to.
3	<b>Soft Key(s)</b> Used to select the option that is shown on the display.
4	<b>Menu Key</b> Used to enter the main menu.
5	<b>Emergency Key</b> Used to send Emergency Alarms.

Item	Description
6	<b>Navigation Keys</b> Used for scrolling or text editing.
7	<b>Enter Key</b> Used to select the required item.
8	<b>Clear Key</b> Used to clear character or back to the previous screen.
9	<b>Alphanumeric Key</b> Used to enter alphanumeric characters for dialing, address book entries and text messages.
10	<b>On Hook / Off Hook Key</b> Used to initiate or answer calls, end calls or send status and text messages.
11	<b>LED</b> Used to indicate the states of the CM5000.

## Powering On/Off

To power on:

- Press and hold **Rotary Knob**.
- If the CM5000 is configured with ignition sense, the radio will automatically turn on whenever the vehicle ignition is turned on.

Your CM5000 performs a self-check and registration routine. After successful registration, the CM5000 will be in service.

The display shows Idle screen.

To power off:

- Press and hold **Rotary Knob**.
- If the radio is powered on via the ignition, it can be turned off via the ignition.

You will see the **Powering Off** message.

## Powering On with Emergency Button

Press and hold the Emergency button to power **On**.

The CM5000 will power **On** in Emergency Operation or in standard mode (as programmed).



*The terminal powers On and Off without visible and audible notification if Silent Emergency Mode is activated.*

## Powering On with Transmit Inhibit Active

Transmit Inhibit (TXI) is a feature allowing you to switch off transmission before entering a Radio-Frequency (RF) sensitive area. To activate this feature, press the **Menu** button and select **More > Networks > TXI Mode > Activate**.



**WARNING:** *Pressing the Emergency button, even if Transmit Inhibit is activated, causes the CM5000 to transmit immediately. The CM5000 must NOT be within the RF sensitive area when entering Emergency Operation.*

Press the **Yes** key to deactivate the TXI Mode. If the CM5000 was previously used in Trunked Mode, it will register to the network. If the CM5000 was previously used in Direct Mode, it will remain in Direct Mode.

Press **No** in Trunked Mode and the CM5000 powers down. Press **No** in Direct Mode and you remain in Direct Mode with TXI selected.

## Unlocking the CM5000

Your CM5000 may be locked at power up.

To unlock the CM5000 after powering on, enter the code at the prompt. The CM5000 enters the default Home display.

The unlock code is originally set to 0000. Your Service Provider may change this number before you receive your terminal.

## Selecting Your Network

Before you start operating your CM5000, you can select the network you want your CM5000 to be registered to. For detailed information, see “Networks” on page 57.

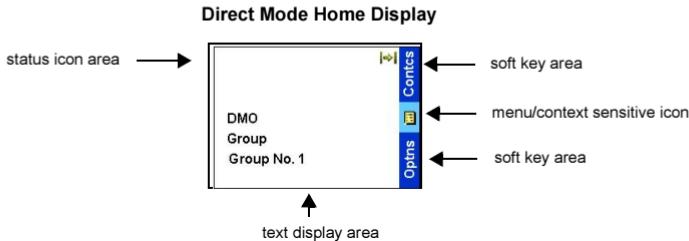
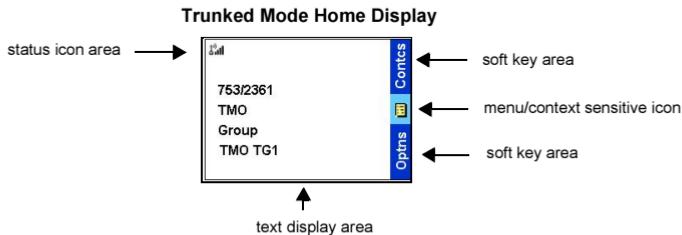
# Looking After Your CM5000

To clean your CM5000, use a moistened or antistatic cloth.  
DO NOT use a dry or electrostatically charged cloth.

## The Display

### Home (Idle) Display

A powered-on, idle terminal shows the following typical Home display:



## Screen Icons

Status icons appear when your phone is engaged in certain activities or when you have activated certain features.

Icon	Description
	<b>Signal Strength</b> Indicates the signal strength in the current TMO or DMO area. Four bars indicate the maximum strength. Fewer bars indicate lower signal strength. You may be able to improve signal strength by moving your vehicle to a different location.
	<b>New Message Has Arrived</b> Indicates that a new message just arrived. Once you change the display the icon disappears.
	<b>New Message(s) in Inbox</b> Indicates that an unread message is in stack. Once you read the message the icon disappears.
	<b>All Tones Off</b> No audible alert tones. The screen displays incoming calls.
	<b>No Speaker</b> Indicates no speaker output.
	<b>GPS</b> Appears when the CM5000 receives the GPS signal.
	<b>Data Connected</b> Appears when the CM5000 is in Packet Data Mode.
	<b>Emergency</b> Appears when the CM5000 is in Emergency mode.
	<b>Scan</b> Appears when the CM5000 is in Group scan mode.
	<b>Direct Mode (DMO)</b> Appears when the CM5000 is in Direct Mode.
	<b>Gateway Mode</b> Indicates in-service state for Gateway Mode. Indicates CM5000 fixed communication through Gateway.

Icon	Description
	<b>Repeater Mode</b> Indicates in-service state for Repeater Mode. Indicates CM5000 fixed communication through Repeater.

## The LED Status Indicator

The LED indicator shows the in-service states of your CM5000. Please refer to the table below.

Indicator	Status
Solid GREEN	In use
Blinking GREEN	In service
Solid RED	Out of service / Disabled
Blinking RED	Connecting to a network
Solid ORANGE	Transmission Inhibit (TXI) in service
Blinking ORANGE	Incoming call
No indication	Switched off

## Key, Rotary Knob, and Button Overview

### Soft Keys

Press upper or lower  to select the option that appears in the screen directly next to the upper or lower soft key. In this example, **Contcs** is displayed next to the key.



Pressing  enters the contact list. In the user guide, this action is described as “press **Contcs**”.

### Menu Button

Press the **Menu** button to enter:

- **The menu (when there is no on-going activity).** The CM5000 menus allow you to control your CM5000 settings. Menus are organised in a hierarchy. See “List of

Menu Items" on page 38. The menu options provide access to a further list of options called a sub-menu.

- The **context sensitive menu** (when  icon is on) to view a list of items for the current menu.

## Rotary Knob

The rotary knob is used for powering on and off your CM5000 and also as a volume control. Turn clockwise to increase the audio volume level.

## Emergency Button

Press and hold this button to enter Emergency Operation.

When the CM5000 is powered down, press and hold this button to power **On** in Emergency Operation (if configured by your Service Provider). See "Emergency Operation" on page 28.

## Aliases (Names)

Aliases are optional names that you can assign to stored phone and private numbers (or IDs). To edit an alias, see page 40.

Aliases can be up to 12 characters in length and may consist of letters, numbers, and spaces.

Aliases are displayed during contact list scrolling or during an incoming call. Aliases are also used in alphanumeric search to retrieve numbers from your memory list.

## Screen Saver

If your Service Provider configured this feature, the screen saver will automatically cover the CM5000 display after the CM5000 stays idle for a pre-programmed period of time. If you press a key or a call arrives, the screen saver is deactivated and the CM5000 resumes standard operation.

The screen saver consists of a logo and an alphanumeric text. Check in the menu options whether the Service Provider

has given you the capability of entering your own screen saver text (see page 49).

## Selecting TMO or DMO Operation

### General

In Trunked Mode Operation (TMO) the CM5000 is used with the infrastructure services within system coverage.

In Direct Mode Operation (DMO) the CM5000 is used without infrastructure services required.



*While operating in DMO the propagation travels directly from the transmitting terminal antenna to the receiving terminal antenna, with no assistance from any base station or tower. Therefore, the range is critically dependent on the position of the user and the antenna. To achieve best results, hold the terminal in the hand as high as comfortably possible, and be sure not to obstruct the antenna in any way. Be sure that the antenna is clear from the body, cables, or other obstructions. As there is no tower-mounted base station to assist, and the two users are usually standing at ground level, the range is usually shorter than that can be achieved towards a tower or hilltop. Any obstructions (hills, buildings, etc.) between the users will further decrease the range. Conversely, raising the terminal higher or moving to a higher location may improve the range.*

A CM5000 in DMO can communicate with the trunked system (and vice-versa) through a gateway device. To use that feature, please enable the gateway option in your CM5000 (see CommType "Gateway/Repeater Selection" on page 21).



*In DMO it is only possible to place Group Calls, Emergency Group Calls and Private Half-duplex Calls.*

### Entering TMO or DMO

Enter TMO or DMO in one of the following ways:

- From the Home display press **Optns** and select **Direct Mode** if the CM5000 is in TMO.
- From the Home display press **Optns** and select **Trunked Mode** if the CM5000 is in DMO.

- Press the **Menu** button and select **More... > Networks > Trunked Mode** if the CM5000 is in DMO.
- Press the **Menu** button and select **More... > Networks > Direct Mode** if the CM5000 is in TMO.



*Your terminal can alert you of an incoming call. Select the alert settings in the Tones menu items.*

## TMO Calls

You can make and receive the following types of calls when the CM5000 operates in Trunked Mode:

- Group Calls
- Private Calls
- Phone Calls
- PABX Calls — local (office) extension calls
- Emergency Calls

## DMO Calls

You can make and receive Group Calls when the CM5000 operates in Direct Mode (DMO). This includes Emergency Group Calls.

The CM5000 returns to the Home display when there is no activity for a few seconds.

## Selecting Gateway or Repeater Mode Operation

### General

In Gateway Mode Operation communication relay between TMO and DMO is available. DMO terminals communicate with the trunked system (and vice-versa).

In Repeater Mode Operation the CM5000 re-transmits information received from one DMO terminal to other DMO terminal enhancing coverage area.

## Entering Gateway Mode

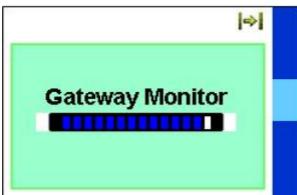
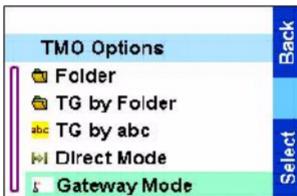
When your CM5000 is in TMO enter Gateway Mode in one of the following ways:

- From the Home display press **Optns** and select **Gateway Mode**.
- Press the **Menu** button and select **More... > Networks > Gateway Mode**.

The display shows Gateway Monitor. In Gateway Monitor Mode CM5000 checks if the communication goes through other gateway or not.

- When it does not pick up other gateway communication, it switches to Gateway Mode.
- When it detects other gateway communication during Gateway Monitor mode. The display shows **Gateway Detected** message. The radio is in Temporary DMO. It checks other gateway communication all the time. If other gateway communication disappears, CM5000 returns to Gateway Monitor Mode.

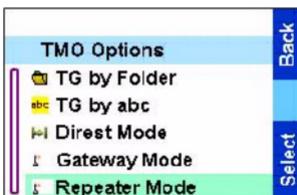
Press **Exit** in Temporary DMO to switch to DMO.



## Entering Repeater Mode

When your CM5000 is in TMO enter Repeater Mode in one of the following ways:

- From the Home display press **Optns** and select **Repeater Mode** as required.



- Press the **Menu** button and select **More... > Networks > Repeater Mode**.

## Making Calls

See the relevant sections in the user guide.

## Receiving Calls

The CM5000 will automatically receive the incoming call. Additionally, if Inactivity Revert Mode is enabled, the CM5000 returns automatically to the Home display, after that call ends.



*Inactivity Revert Mode will occur if configured by your Service Provider.*

Your CM5000 will alert you of an incoming call depending on the setting you selected in the Tones menu option (see page 47).

During message editing, you will be alerted of an incoming Group/Emergency/Broadcast Group Call if configured by your Service Provider.

# Trunked Mode Operation - TMO

---

## General

A Group Call is an instant communication between you and others in a talkgroup that you select. Participants may join (late entry) and leave an on-going Group Call. A talkgroup is a pre-defined set of subscribers enabled to participate in and/or invoke a Group Call, that is set up by your Service Provider.

Talkgroups appear on your display as names or numbers (for example: Sales, Service, Electricians, Talkgrp10).

Talkgroups are divided into **folders**. Each folder may contain several talkgroups.

For ease of use, your CM5000 also provides the ability to:

- Perform an alphabetical search of the talkgroup aliases.  
Scroll through the entire talkgroup list.
- Organise your favourite groups into one folder called **My Groups** (set up by your Service Provider).

Your talkgroups may be organized into **scan lists** (set up by your Service Provider, or by yourself through the Menu).

When you activate one of these scan lists, your CM5000 will continuously monitor the activities of the selected talkgroups.

By assigning priorities to the talkgroups defined in the **scan list**, you will be capable of accepting calls that have higher priority than the on-going call.

You can start talkgroup, folder, or scanning selection when the terminal is idle or receiving a call.

When receiving a call, choose one of the following:

- Exit selection screen to join the call.
- Join the call from the selection screen by pressing **PTT**.
- Continue selection.

## Selecting a Group

You can select a talkgroup in one of the following ways, by using the:

- folder search.
- alphabetical search feature.
- index.

### Using Folder Search

From the Home display, press **Optns**. Select a group by folder search (“**TG by Folder**”). Select the folder and select the group.



### Using Alphabetic Search

From the Home display, press **Optns**. Select a group by alphabetic search (“**TG by abc**”). Enter the first character of the group’s name. Select the group.



### Using Index

From the Home display, press **Optns**. Select a group by folder search (“**TG by Index**”). Select the folder and select the group.



### Selecting a Folder

From the Home display, press **Optns**. Select **Folder**, and select the desired folder. The display shows the last selected group in that folder.



## “My Groups” Folder

You can organise your favourite groups into one folder called “My Groups”.

## Adding/Deleting Groups from My Groups

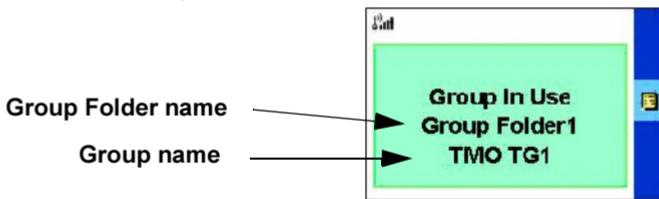
For more information, see “My Groups” on page 54.

## Activating/deactivating Scanning

See “Group Scan” on page 51.

## Making a Group Call

1. From the Home display and if this is the required group, press and hold the **PTT**.
2. Wait for the talk permit tone (if configured) and then speak into the microphone. Release the **PTT** button to listen.



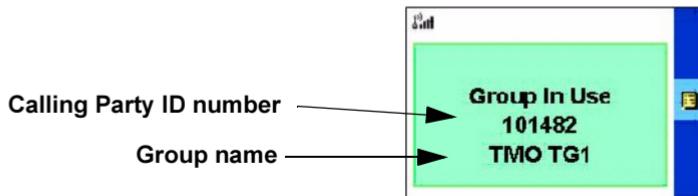
When you start a call, all members of the selected group who have their units turned on, will receive the Group Call.



*The “No Group” message is displayed when you are out of the normal coverage area of your selected group. You must then select a new group that is valid for your working location.*

## Receiving Group Call

When a Group call is received the mobile will automatically go into group mode and receive the call, also the group caller name will appear in the screen.



## Transmit Inhibit

You can activate the Transmit Inhibit (TXI) Mode before entering RF sensitive areas, e.g. in hospitals or in potentially explosive areas, where safety can be jeopardized due to CM5000 transmission radiation.



*Radiation of the CM5000 is only suppressed if the TXI Mode is activated or the CM5000 is separated from power supply.*

In TXI Mode the CM5000 will not transmit under any circumstances, except for the Emergency Call, which can be initiated even if the CM5000 is in TXI Mode.

All CM5000 functions and keys which cause transmission, e.g. registration to the network, change of talkgroup or folder, sending messages, pressing **PTT**, etc. are disabled.

When no danger to safety exists anymore (for instance if you leave the RF sensitive area), the TXI Mode can be deactivated and the CM5000 returns to standard operation.

# Direct Mode Operation - DMO

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## DMO Group Call

In DMO, the CM5000 can be used without your Service Provider's infrastructure. Direct Mode (DMO) allows communication with other terminals also operating in Direct Mode, which are on the same frequency and talkgroup as your CM5000.

You can receive a call:

- From the selected talkgroup
- From other users within talkback range (if configured by your Service Provider). This is called an InterMNI (Mobile Network identity) call.
- From an open group. (An open group is a super-group to which all DMO groups belong.)

When you start a call, the members of the selected talkgroup who have their units turned on, and are within the group subscriber identity (as configured by the Service Provider), will receive the transmission.

If Transmit Inhibit is activated while the terminal is set to DMO, the PTT is disabled. You can only listen. For detailed information on Transmit Inhibit, see page 19. DMO Talkgroup selection is allowed when Transmit Inhibit is activated.

## “My Groups” Folder

You can organise your favourite groups into one folder called “My Groups”.

## Adding/Deleting Groups from the My Groups Folder

For more information, see “My Groups” on page 54.

## Selecting a Group

See “Selecting a Group” on page 17.

## Selecting a Folder

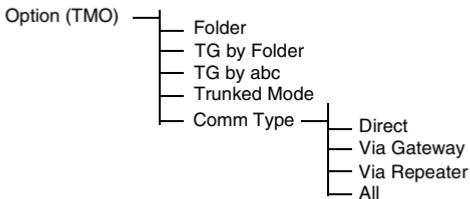
See “Selecting a Folder” on page 17.

## Gateway/Repeater Selection

Use the DMO Config sub-menu for setting the Gateway and Repeater options.

1. Press **Optns** to enter the options menu in DMO.

### *DMO Options sub-menu*



2. Scroll to **Comm Type**, and press **Select**.

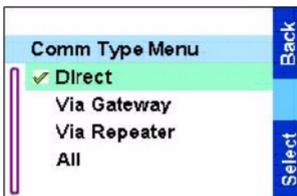


## Selecting DMO Group Call MS to MS

To change from gateway or repeater mode to MS - MS mode (DMO terminal to terminal call):

1. Press **Optns**, scroll to **Comm Type** and press **Select**.
2. Scroll to **Direct** and press **Select**.

Your CM5000 communicates directly among DMO terminals.



## Selecting DMO Group Call via Gateway

While in DMO, proceed as follows to choose a gateway to set up a call via Gateway for the selected talkgroup:

1. Press **Optns**, scroll to **Comm Type** and press **Select**.
2. Scroll to **Via Gateway** and press **Select**.

Your CM5000 communicates through Gateway only.

## Selecting DMO Group Call via Repeater

While in DMO, proceed as follows to choose the Repeater option to set up a call via Repeater for the selected talkgroup:

1. Press **Optns**, scroll to **Comm Type** and press **Select**.
2. Scroll to **Via Repeater** and press **Select**.

Your CM5000 communicates through Repeater only.

## Selecting DMO Group Call via Gateway and Repeater

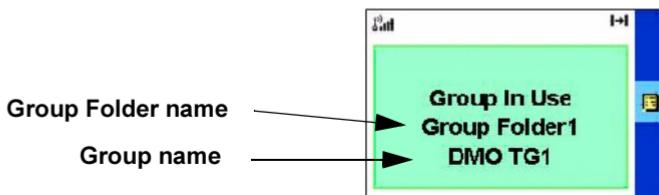
While in DMO, proceed as follows to choose the Gateway and Repeater option to set up a call via Gateway or Repeater for the selected talkgroup.

1. Press **Optns**, scroll to **Comm Type** and press **Select**.
2. Scroll to **All** and press **Select**.

The CM5000 automatically adjusts communication type to a mode depending on a Gateway or Repeater signal presence. If no signal presence is detected, the terminal switches to MS - MS communication.

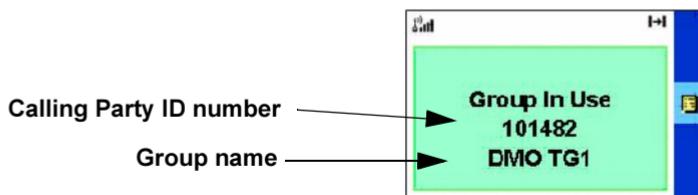
## Making Group Call

Select the group from Talkgroup list you require. Press **PTT** button and wait for the grant tone before speaking into the microphone remembering to release the **PTT** to listen.



## Receiving Group Call

When an Group call is received the mobile will automatically go into group mode and receive the call, also the group caller name will appear in the screen.



# Private Call

---

## General

A Private Call, also called Point-to-Point or individual call, is a call between two individuals. No other terminal can hear the conversation.

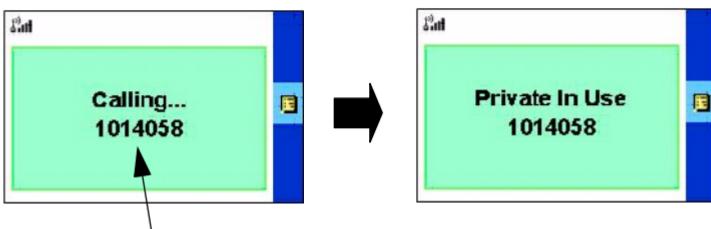
 *If your Service Provider has restricted access to the Contacts list, it might not be possible to create a new contact, edit existing contacts or dial up a number which is not in the Contacts list.*

For operating the CM5000 in RF sensitive areas, see "Transmit Inhibit" on page 19.

 *While Transmit Inhibit is activated, an incoming Private Call is indicated, but it is not possible to answer the call.*

## Making Semi-Duplex Private Call

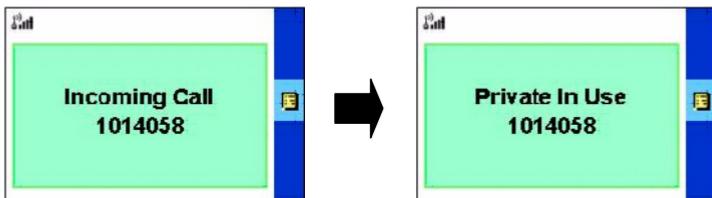
1. From the Home display select Private Mode using right/left navigation keys.
2. When in Private Mode, dial a number and select **Ok**.
3. Press and hold the **PTT** button. Wait for the talk permit tone (if configured) before talking, and release the **PTT** when listening.
4. To end the call press **On Hook** key.



**Private In Use:**  
Call set-up procedure is completed  
Terminal is in Traffic mode

## Receiving Semi-Duplex Private Call

1. The CM5000 switches to the incoming Private Call. The display shows incoming call notification and the caller's identity.
2. To answer an incoming call, press **PTT**.
3. To reject or end the call, press **On Hook** key.



## Making Full-Duplex Private Call

1. From the Home display select Private Mode using right/left navigation keys.
2. When in Private Mode, dial a number and select **Ok**.
3. Press **Off Hook** key to start the call.
4. To end the call press **On Hook** key.

## Receiving Full-Duplex Private Call

1. The CM5000 switches to the incoming Private Call. The display shows incoming call notification and the caller's identity.
2. To answer an incoming call, press **Off Hook** key.
3. To reject or end the call, press **On Hook** key.

# Phone and PABX Calls

---

## General

The **Phone Call** allows you to call a landline telephone number or a cellular mobile phone number. The **Private Automatic Branch Exchange (PABX) Call** allows you to call local office extension numbers (if programmed by your service provider). This type of call needs to be activated by your Service Provider.

In this publication we use “phone number” when referring to these numbers.

Both calls have the same dialing features.

For operating the CM5000 in RF sensitive areas, see “Transmit Inhibit” on page 19.



*While Transmit Inhibit is activated, an incoming Phone or PABX Call is indicated, but it is not possible to answer the call.*

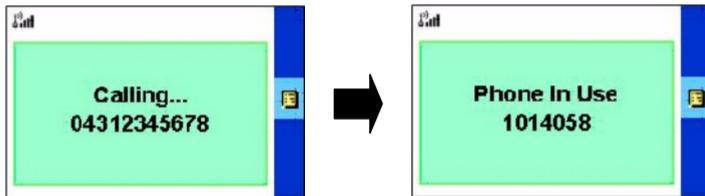


*If your Service Provider has restricted access to the Contacts list, it might not be possible to create a new contact, edit existing contacts or dial up a number which is not in the Contacts list.*

## Making a Phone or PABX Call

1. From the Home display select Phone or PABX Mode using right/left navigation keys.
2. When in Phone or PABX, select a pre-programmed number from the contact book or dial a number.

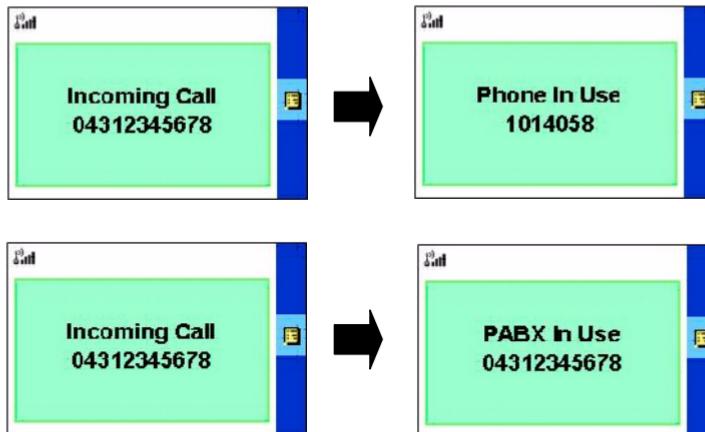
3. Press and release **Off Hook** key. You will hear a ringing tone. Wait for the called person to answer your call.



4. To end the call, press **On Hook** key.

## Answering a Phone or PABX Call

1. The CM5000 switches to the incoming Phone/PABX Call and starts ringing.
2. To answer the incoming call, press **Off Hook** key.
3. To reject or end the call, press **On Hook** key.



# Emergency Operation

---

## General

Emergency Operation is available in TMO and in DMO, if the CM5000 is in service.

Emergency Mode indication (alert tones) can be disabled by your Service Provider.



*Pressing the Emergency button even if Transmit Inhibit is activated causes immediately the CM5000 to transmit. When entering Emergency Operation the CM5000 should not be within the RF sensitive area any longer!*

## Entering Emergency Mode

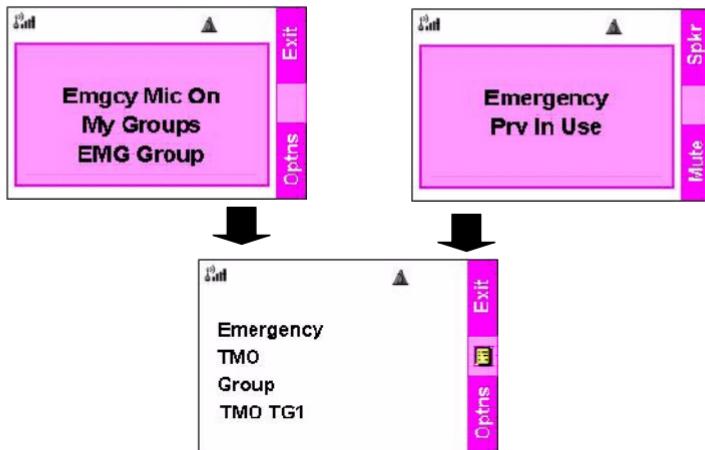
The terminal will enter **Emergency Mode** when you press and hold the Emergency button.

The Emergency Mode allows you to use the **PTT** to transmit with Emergency priority (by either initiating an Emergency Group Call or requesting emergency transmit priority).

After entering Emergency Mode, your CM5000 automatically sends an Emergency Call to predefined address and activate Hot Microphone (if configured).

**Hot Mic** (Hot Microphone) allows you to talk without pressing the **PTT**. Pressing **PTT** during Hot Mic ends Hot Mic transmission. If Hot Mic is disabled, then use **PTT** to talk.

Each time you press and hold the Emergency button, the terminal sends an Emergency Call with Hot Mic emergency function again.



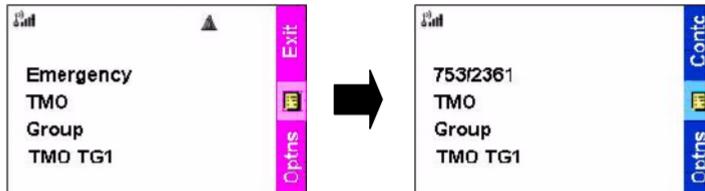
Upon entry into Emergency Mode any existing call or service other than packet data service will be aborted or cleared down.

In Emergency Mode, the terminal will automatically reject Phone, PABX and Private Calls, and will not monitor the groups in the user selected scan list.

## Exiting Emergency Mode

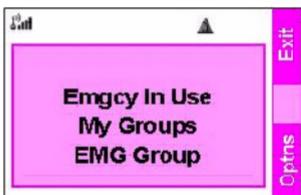
The terminal exits Emergency Mode and switches to the Home display:

- If you press and hold the **Exit** soft key during an Emergency Group Call.



- If the infrastructure ends the Emergency Group Call.

## Receiving Emergency Call



When the CM5000 receives Emergency Call, the display will show **Emgcy In Use** and switches to Emergency Mode automatically.

# GPS Location Service

---

Your terminal's GPS Location feature uses information from Global Positioning System (GPS) satellites orbiting the earth to determine the approximate geographical location of your terminal. The availability and accuracy of this location information (and the amount of time that it takes to calculate it) will vary depending on the environment in which you are using the terminal.

For example, GPS location fixes are often difficult to obtain indoors, in covered locations, between high buildings, or in other situations where you have not established a clear broad view of the sky.

## See: **IMPORTANT - Things to Keep in Mind.**

The GPS location Service can assist your Dispatcher or Colleagues in many ways such as more efficient deployment of resources or locating your terminal if you trigger your emergency service.

The terminal can be configured to display location information on the terminal's display or to send it over the air to your dispatcher where it can be displayed in control center (Please check with your Service Provider on the configuration of your terminal).

## **IMPORTANT - Things to Keep in Mind**

Where adequate signals from multiple satellites are not available (usually because your GPS antenna cannot establish a view of a wide area of open sky), the GPS feature of your terminal **WILL NOT WORK**. Such situations include but are not limited to:

- In underground locations
- Inside of tunnels or parking garages
- Under any other metal or concrete roof or structure
- Near a powerful radio or television tower

- When your GPS antenna is covered (for example, by your hand or other object) or facing the ground
- In temperature extremes outside the operating limits of your terminal

Even where location information can be calculated in such situations, it may take longer to do so. Therefore, in any emergency situation, always report your location to your dispatcher.

Furthermore, please note that even where adequate signals from multiple satellites are available, your GPS feature will only provide an approximate location, often within 20 - 100 meters from your actual location.

## **Enhancing GPS Performance**

Sometimes the GPS feature of your terminal may be unable to complete a location calculation successfully. You will then see a message indicating that your terminal cannot see enough visible satellites.

To maximize the ability of your terminal to determine a location fix please note the following guidelines:

- The GPS feature works best where there is nothing between the GPS antenna and a large amount of open sky. If possible, move your vehicle away from tall buildings and foliage. While performance in a building is improved by moving closer to windows, glass with certain sun shielding films may block satellite signals.
- Position your vehicle to enhance reception, giving the antenna clear access to satellite signals. Signals from GPS satellites are transmitted to your GPS antenna. Do not cover the antenna area with your fingers or anything else.
- Stay in network coverage. Depending on who your service provider is, the network will provide your terminal with information that helps determine your location more quickly and accurately.

## GPS Icon

When your terminal is receiving valid GPS location data, a GPS icon will be shown in the display:



Please note, that during emergency mode, your terminal will not display the GPS icon even when receiving GPS location data. If valid GPS location data is available when you leave emergency mode the GPS icon will be displayed again.

## GPS Enable/Disable

1. From the main menu, press the **Menu** button and select **More... > Location > Interface**.

The current selection (**On/Off**) is highlighted.

2. Select the new choice. The display shows:

**On** — Location Service On

**Off** — Location Service Off

## Entering GPS Location Service

To enter the GPS sub-menu, press the **Menu** button and select **More... > Location**:

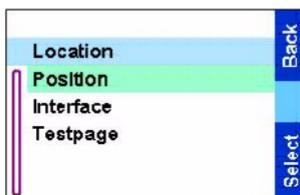
**Position** — provides the actual position information.

**Interface** — allows you to enable/disable the GPS location service.

**Test Page** — provides detailed position information.

Scroll to your selection and press **Select** to access the next display.

This estimate of accuracy of the calculated location is only a very rough estimate and may vary substantially from the



actual accuracy of the approximate location information reported.



*The variation will vary in accordance to the GPS Configuration set by your Service Provider.*

*The availability of the GPS Location menus is dependent on your terminal configuration, please contact your Service Provider for further details.*

## Viewing Your Position

1. From the main menu, press the **Menu** button and select **More... > Location > Position**.
2. Scroll to view the entire screen.

This displays the following information about the last time your location was calculated (if available):

- The **time** the location was last calculated
- The **latitude** expressed in degrees, minutes, and seconds
- The **longitude** expressed in degrees, minutes, and seconds
- The **number of satellites** used to calculate the location. In general, more satellites make for better accuracy. The maximum is twelve satellites.

To calculate your location again, press **Rfrsh**.

It may take your terminal several minutes to complete the process of determining your location. During this time, a message usually appears on your terminal's display stating:

- Insufficient Visible Satellites, or
- Insufficient Visible Data

For tips on getting the best location calculation, see "Enhancing GPS Performance" on page 32.

The **Position** screen displays the updated information.

To cancel a location calculation before it is completed:

Press **Back** to return to the previous screen.

Each time approximate location of your terminal is calculated, the latest location information is stored in your

terminal and remains there even when your terminal is powered off. You will see this information the next time you view the **Position** screen.

If you received a terminal call or alert while attempting to determine your location, the **Position** screen will disappear, but your terminal will continue attempting to determine its location. If it is successful, the new location information will be displayed the next time you view the **Position** screen.

# The Menu

---

## To Enter the Menu Items

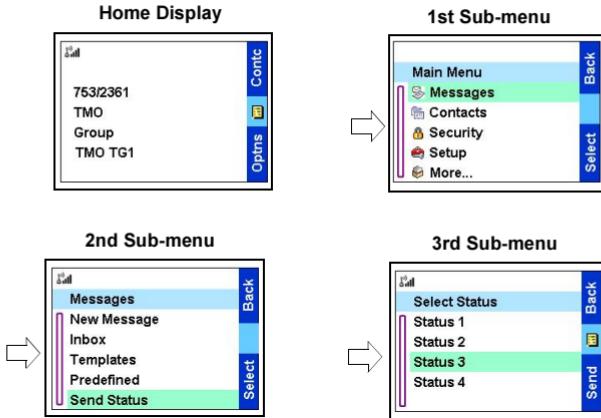
You can enter the menu items during a call. If you are viewing a menu when a new call starts, the terminal will exit the menu.

1. Press the **Menu** button.

2. Scroll to the required item, press **Select** to select.

If the menu item contains a further set of menu items as in the example below, repeat step 2.

### *Navigating Menu Items*



When scrolling up/down menu items, try also right/left scrolling. (This will select the item or return to previous level.)

## To Return to the Previous Level

Press **Back**.

## To Exit the Menu Items

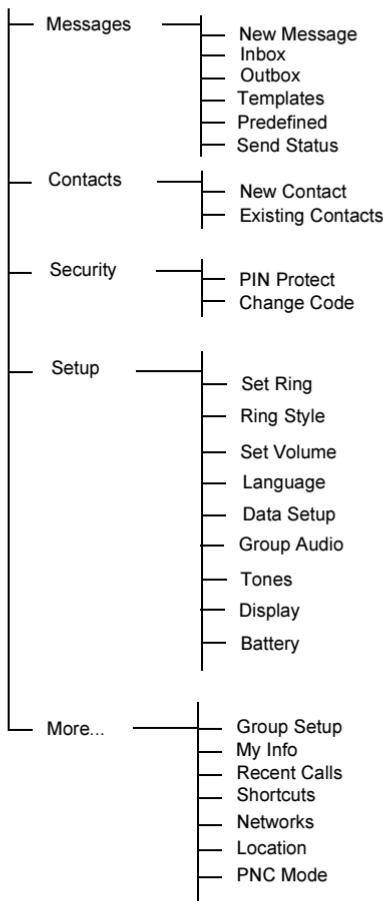
Press **On Hook** key.

## Menu Icons

The following icons make it easy to identify the menu items at first glance.

Menu Icon	Description
	<b>Main Menu Items/Context Sensitive Menu</b> Appears above the <b>Menu</b> button if the main menu items/context sensitive menu are active.
	<b>Messages</b> <ul style="list-style-type: none"><li>• Send status messages,</li><li>• Send short text messages (free text or according to user defined or predefined templates),</li><li>• Receive messages in Inbox.</li></ul>
	<b>Contacts</b> Add, search, edit, or erase entries in the contact list.
	<b>Security</b> Lets you turn On/Off and verify security features, and change passwords.
	<b>Setup</b> Allows you to customise your CM5000.
	<b>More...</b> Contains more customisable menu items.
	<b>Scroll Bar</b> Indicates navigation among items that occupy more than one screen. If all items appear in one screen, the scroll bar is empty.

## List of Menu Items



*This is the standard menu layout. Your Service Provider may enable/disable some menu items or change their names.*

## Messages

Refer to “Messages” on page 62 for details.

## Contacts

### General

Contacts stores Private, Phone, and PABX numbers. Each Contacts entry can store several numbers. A Contacts entry contains:

- **A name** — A name is required if you are storing more than one number to the entry; otherwise, it is optional. Typically, this is the name of the person whose contact information is stored in the entry.
- **A Contacts type** — Each number stored must be assigned a Contacts type.
- **A number** — Each Contacts entry must contain a number. This may be any type of phone number and Private ID
- **A Speed Dial number** — When you store a phone number, it is assigned a Speed Dial number. You can accept the default Speed Dial number or change it.



*If set up by your Service Provider, it is not possible to create or edit Contacts or dial a number which is not in the Contacts list. The menu items for creating, editing, and deleting Contacts are not available.*

### Contact Icons

In the contact list display, the following icons may appear next to the contact numbers to indicate the type of stored number.

Contact Icon	Description
	<b>Private ID Number</b>
	<b>Mobile Phone Number</b>
	<b>Home Phone Number</b>

Contact Icon	Description
	<b>Work Phone Number</b>
	<b>PABX Number</b>
	<b>Other Phone Number</b>
	<b>Pickers</b> Indicate more than one number is stored with the contact.

## Creating a Contact

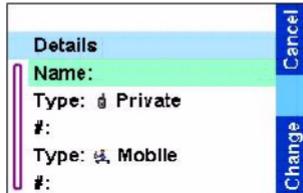
1. From the Home display, press **Contcts**. Select **[New Contact]**.

OR

From the main menu select **Contacts**. Select **[New Contact]**.



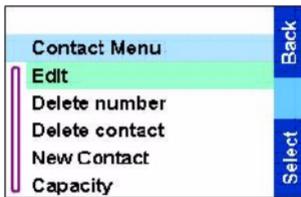
2. Enter name. Press **Ok** to confirm.
3. Scroll left or right and select the type of stored number (such as Private).
4. Enter number (#). Press **Ok**.



5. Scroll up and down the entries. Continue to enter other types and numbers, as you may keep several numbers (Private, Mobile, Home, Work, PABX, Other, Speed Dial number) for the same person under the same contact name. To correct an entry, press **Change**.
6. When finished, press **Done**. Press **Back** to return to Home display.

## Editing a Contact

1. From the contact list, scroll to the entry you want to edit.
2. Press the **Menu** button to enter Contacts Menu. Select **Edit**. The entry details screen displays.
3. Follow the instructions in "Creating a Contact" on page 40 to edit the various fields.



## Deleting a Number

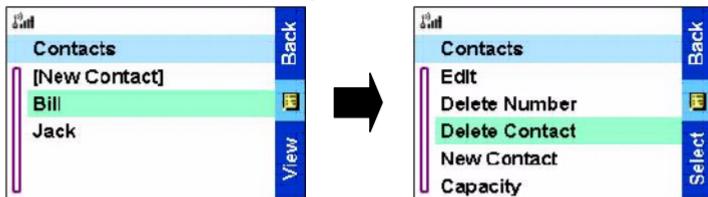
1. From the contact list, scroll to the entry that contains the number you want to delete.
2. Scroll left or right to display the contact type for the number you want to delete.
3. Press the **Menu** button.
4. Select **Delete Number**.
5. Press **Yes** to confirm.



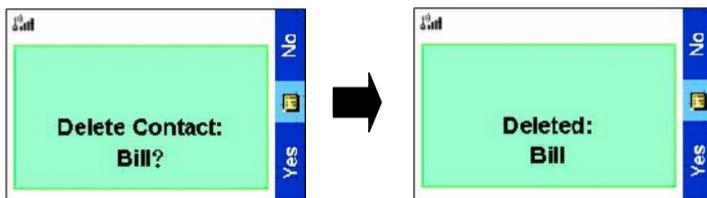
*If an entry contains only one number, deleting the number deletes the entry.*

## Deleting a Contact

1. From the contact list, scroll to the entry you want to delete.
2. Press the **Menu** button.
3. To delete the entire entry, select **Delete Contact**.



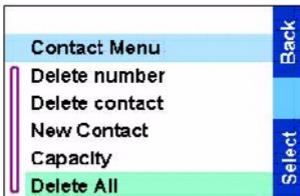
4. Press **Yes** to confirm.



## Deleting All

To delete all the contacts:

1. From the contact list, press the **Menu** button.
2. Select **Delete All**.
3. Press **Yes** and **Yes** once again to confirm.



## Capacity

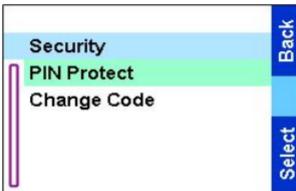
You can check how many numbers are used and how many numbers remain free in your Contact list.

To check the capacity:

1. From the contact list, press the **Menu** button.  
OR  
From a contact detail display, press the **Menu** button
2. Select **Capacity**.
3. Select from the following options:
  - **Private** — shows Private numbers capacity
  - **Phone/PABX** — shows Phone/PABX numbers capacity
  - **Contact** — shows contacts capacity
4. Select **Back** to exit.

# Security

From the main menu, select > **Security**  
or > **More...** > **Security**



## PIN Protect

Network access protection is configured by your Service Provider:

- No access to network operation — you can only send or receive Emergency Calls and adjust the volume level. Unit lock takes effect at the next power on.

To protect access to network operation:

1. From the main menu, select **Security** > **PIN Protect**.
2. Select **On** and press **Select**.
3. At the **Input Code** prompt enter the 4-digit code (factory setting 0 0 0 0). To avoid disclosure of the code, asterisks are displayed instead of the code digits. The display will show the following message:

**Unit Locked** — you entered the correct code. The display returns to the Security sub-menu and shows the active setting: **On**.

To unlock the CM5000 before powering off:

1. From the main menu, select > **Security** > **PIN Protect**.
2. Select **Off** and press **Select**.
3. At the **Input Code** prompt enter the 4-digit code. The display will show the following message:

**Unit Unlocked** — You entered the correct code. The display returns to the Security sub-menu and shows the active setting: **Off**.

To unlock the CM5000 after powering on, enter the code at the prompt. The CM5000 enters the Home display.

If you fail to enter the correct code, the following message will be displayed:

**Incorrect Code Entered** — You are prompted to try again. After failing, your CM5000 will be blocked. Please check with your Service Provider how many failed attempts are allowed.

## Change Code

From the main menu, select > **Security** > **Change Code**.

*The default PIN code is 0000.*



At the **Input Code** prompt, enter the 4-digit code. If the old code does not match the entered code at verification, the display prompts you to re-enter the old code.

If the entered code matches the old code, the display prompts you to enter a new 4-digit code and to repeat it for confirmation. If the confirmation code does not match the new code, the display prompts you to re-enter the new code.

When the new code is accepted, the display shows **Code Accepted** and returns to the Security sub-menu.

## Setup

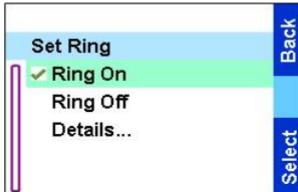
From the main menu, select **Setup**.

This sub-menu allows you to change your CM5000 configuration: ring style, volume, language, data setup, speaker, tones, and display.

### Setting the Ring Tone

From the main menu, select **Setup > Set Ring**.

You can turn on or off the ring tone by selecting the respective option.



To turn on or off the ring for incoming calls and messages separately select **Details**. Select the desired option:

- **Ring Calls** — to set the ring for incoming calls to on/off.
- **Ring Msgs** — to set the ring for incoming messages to on/off.



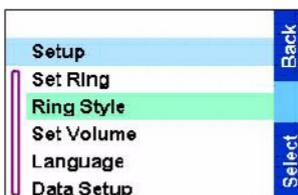
### Setting the Ring Style

This sub-menu allows you to set the incoming call ring style.

From the main menu, select **Setup > Ring Style**.

Upon entry into this sub-menu, the display shows the current ring style used.

To set the ring style scroll to the desired style and press **Select**.



## Setting the Volume

This sub-menu allows you to adjust the ringer, earpiece, speaker, and keypad tone volume.

To set the volume:

1. From the main menu, select **Setup > Set Volume**.

2. Scroll through the list:

- **Ringer Vol** — sets ringing tone volume.
- **Speaker Vol** — sets speaker volume (the same as volume knob).
- **Keypad Vol** — sets keypad pressing tone volume.

3. Select the required item, and press **Change**.
4. Adjust the volume level using left/right navigation keys or Rotary Knob. A feedback tone is heard, and a volume level bar is displayed.
5. Press **Back** to exit.
6. Press **Done** to accept the settings.



## Setting the Display's Working Language

From the main menu, select

**Setup > Language**.

The display shows the current language used. You can customize your CM5000 to operate in English, German, French, Spanish, Dutch, Swedish or in a language defined by your Service Provider. The default setting from factory is English.

Scroll to the desired language and press **Select**. The display shows the selected language for a few seconds.



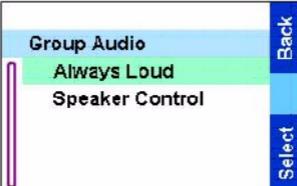
## Setting Group Audio

1. From the main menu, select **Setup > Group Audio**.



2. The display shows the current audio setting. When set to:

- **Always Loud** — received audio is outputted through an external speaker despite the Speaker Control settings.
- **Speaker Control** — received audio is outputted accordingly to the Speaker Control settings.



3. Select the required setting.



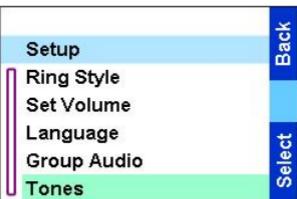
*Incoming Private, Phone and PABX calls are always outputted accordingly to the Speaker Control settings.*

## Setting Tones

From the main menu, select **Setup > Tones**.

This sub-menu allows you to activate/deactivate the CM5000 tones.

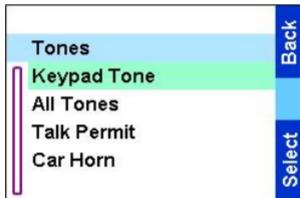
For a detailed list of tones, see Tones section.



## Setting Keypad Tone

To activate/deactivate keypad tone at every key press:

1. From the main menu, select **Setup > Tones > Keypad Tone**.
2. Scroll through the settings (**On/Off**).
3. Choose required setting, and press **Select**, or press **Back** to exit.



## Setting All Tones

To activate/deactivate all tones (keypad tone and other activity tones used in your CM5000):

1. From the main menu, select **Setup > Tones > All Tones**.
2. Scroll through the settings (**On/Off**).
3. Choose required setting, and press **Select**, or press **Back** to exit.

## Setting Talk Permit Tone

There are 3 tone settings:

- **No Tone** (no tone heard upon pressing the **PTT**).
- **Short Tone** (a short tone heard upon pressing the **PTT**).
- **Normal Tone** (the factory-default tone heard upon pressing the **PTT**).

To change your Talk Permit Tone settings:

1. From the main menu, select **Setup > Tones > Talk Permit**.
2. Scroll through the settings.
3. Choose required setting, and press **Select**. Press **Back** to exit.

## Setting Car Horn Tone

To activate/deactivate car horn notification about receiving individual call while the ignition is off:

1. From the main menu, select **Setup > Tones > Car Horn**.
2. Scroll through the settings (**On/Off**).
3. Choose required setting, and press **Select**, or press **Back** to exit.

## Display Features

The display menu controls the display appearance.

From the main menu, select **Setup > Display**:

- **Text Size** — sets size of text on the display.
- **Screen Saver** — covers the CM5000 display after the CM5000 stays idle for a pre-programmed period of time (if configured by your Service Provider).
- **Backlight** — a backlight lights the display and keypad when you make or receive a call, or press keys or buttons. Backlight can be set to Automatic or Disabled.
- **Wallpaper** — changes the wallpaper that appears on the idle screen.
- **Contrast** — sets the contrast of the display.



### Setting the Text Size

1. From the main menu, select **Setup > Display > Text Size**.
2. Press **Change**. Select **Standard** or **Zoom** to see the text on the display in two sizes.



### Screen Saver

1. From the main menu, select **Setup > Display > Screen Saver**.
2. Press **Change**. Press **Change** again and select the screen saver setting: **Auto** or **Disabled**. If set to Auto the screen

saver turns on after 30 seconds of inactivity.

3. Scroll to **Text**. Press **Change**. Type/edit the screen saver text using the keypad. (For details on text editor use, see "Writing Text" on page 69).
4. Press **Done** to exit.

### ***Setting the Backlight***

You can set the function and brightness of the backlight.

To enter your backlight settings sub-menu:

1. From the main menu, select **Setup > Display > Backlight**.
2. Press **Change**.
3. Select required setting.

- **Function** — your CM5000 has 4 backlight settings:

**Automatic** — Any key press turns the backlight on. The backlight remains on until the pre-programmed timer runs out.

**Disable** — The backlight feature is disabled.

**Semi-automatic** — Per default the backlights are switched off. You can switch the backlights on by pressing the Enter key. After a few seconds (configured by your Service Provider) the backlights switch off automatically.

**Manual** — The backlight remains on. To turn the backlight on/off press the Clear key.

- **Brightness** — you can set the brightness to **High** or **Low**.

### ***Setting the Wallpaper***

1. From the main menu, select **Setup > Display > Wallpaper**.
2. Press **Change**.
3. Select required setting (**On/Off**).
4. Press **Done** to exit.

When On is set, the radio displays pre-programmed wallpaper in the background

## **Setting the Contrast**

1. From the main menu, select **Setup > Display > Contrast**.
2. Press **Change**.
3. Use the left/right navigation keys or Rotary Knob to adjust the contrast.
4. Press **Ok**.
5. Press **Done** to exit.

## **Battery Level**

From the main menu, select

**Setup > Battery**.

The display shows Battery level.



## **More...**

From the main menu, select More. This sub-menu Contains more customisable menu items.

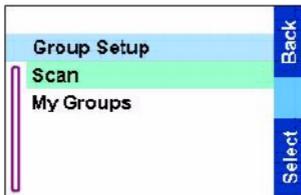
## **Entering Group Setup**

From the main menu, select **More > Group Setup**. This sub-menu allows you to set the Scan and My Groups features.

## **Group Scan**

From the main menu, select **More > Group Setup > Scan**.

This sub-menu allows you to activate/deactivate scanning, view the active scan list, and edit the scan lists.



## Scanning

This sub-menu allows you to activate/deactivate the scanning of a list of pre-defined groups programmed in the CM5000. The CM5000 will join any group call as long as this group is defined in the scan list and scan is turned on.

From the main menu, select **More > Group Setup > Scan > Scanning**.

After completing the settings, the display returns to the Scan sub-menu.



*When the CM5000 is in DMO, Gateway or Repeater modes you cannot activate the scanning. An error message will be displayed.*

## Active List

This sub-menu allows you to view the active scan list.

1. From the main menu, select **More > Group Setup > Scan > Active List**. Press **View**.
2. Scroll to the required list and press **View** to see the groups that belong to the list.
3. Scroll to the required group and press **View** to view the group status (attached or not attached) and priority (if pre-programmed).
4. Press **Back** to return to the previous display. Then, if required, press the **Menu** button. You can select to **delete** the group from the scan list or **change** its priority.



*If the Network List is empty, it will not be displayed.*

## Scan Lists

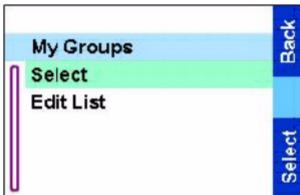
1. From the main menu, select **More > Group Setup > Scan > Scan Lists**.
2. Scroll to the required scan list. Press **View** to see the groups used in the scan list. Press **Back** to return to the previous display.
3. To edit/view the contents of a scan list, press the **Menu** button.

4. In the List Optns sub-menu, scroll to the required option and press **Select**.

- **Rename** the active scan list. Enter a new name (alias) and press **Ok**. The display shows the new setting.
- Check the **capacity** of the active scan list (number of groups stored in the list).
- To **Clear** all groups from the selected scan list, press **Yes**. You will be prompted to remove all groups from the selected scan list.
- **Add** a group to the selected scan list. Every added group (including a favourite group) comes with its folder, its name or number, and its priority (if pre-programmed).
  - > To select a folder, scroll through the folder list. The list does not show folders whose groups are fully used in the selected scan list. Press **Ok** to select a folder.
  - > To select a group, scroll through the group list within the selected folder. The list shows groups that are not in the selected scan list. Press **Ok**.
  - > To set a priority to a group, scroll through the priority list: high, medium, or low.
- A call from a high priority group will interrupt an on-going call with a medium and low priority.
- A call from a medium priority group will interrupt an on-going call with a low priority.
- A call from a low priority group will not interrupt any on-going call.
- **Edit** the scan list groups.
  - > Scroll to the group you wish to remove from the selected scan list, and press **Delete**. You will be prompted to remove the selected group. After a few seconds, the display shows the updated scan list.
  - > To change the group priority, press **Priority**. Scroll to the selected priority and press **Select**.

## My Groups

This sub-menu allows you to select/edit your favourite group list.



### **Selecting a Group from My Groups**

1. From the main menu, select **More > Group Setup > My Groups > Select**. (If the folder is empty, add groups.)
2. The screen returns to the Home display. My Groups is displayed as the first highlighted folder in the list of folders. You can now scroll through the favourite group list. Press **Select** to confirm your choice.

When selecting **My Groups** and no groups exist from the current DMO/TMO, you may be forced to switch from TMO to DMO or from DMO to DMO. In this case you will be prompted to accept the mode change.

### **Adding a Group to My Groups**

1. From the main menu, select **More > Group Setup > My Groups > Edit List > [New Group]**.
2. Select a group by folder search ("TMO/DMO by Folder"). Select the folder and select the group. The group is added to the "My Groups" folder. OR, select a group by alphabetic search ("TMO/DMO by abc"). Enter the first character of the group's name.

### **Deleting a Group from My Groups**

1. From the main menu, select **More > Group Setup > My Groups > Edit List**.
2. Select the group you wish to remove. Select **Yes** to confirm removal.

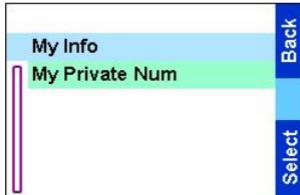
## **Deleting All Groups from My Groups**

1. From the main menu, select **More > Group Setup > My Groups > Edit List**.
2. Press the **Menu** button. Select **Delete All**. Select **Yes** to confirm removal.

## **Viewing Personal Information**

Use this feature to view your own private number at any time.

1. From the main menu, select **More > My Info**.
2. Select **My Private Num**.



## **Recent Calls**

From the main menu, select **More > Recent Call**.

You can view the history of all calls:

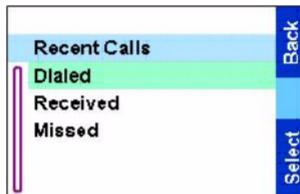
- **Dialled Calls**
- **Received Calls** — calls you answered
- **Missed Calls** — calls received but not answered, or rejected by the CM5000.

Each list of calls may contain up to 10 numbers, the most recent call being at the top of the list.

If the number of a recent call is stored in the contact list, the name associated with the number appears in the recent calls list.

An icon appears beside the name or number, indicating the contact type of the number used in the call. See “**Contacts**” on page 39.

Old calls remain in your recent calls list until you delete them or until they reach the end of the list.



A number dialled more than once, will appear only once in the list.

You can make a Phone, PABX, or Private Call from the entry, depending on the entry you are selecting in the list.

## Shortcuts

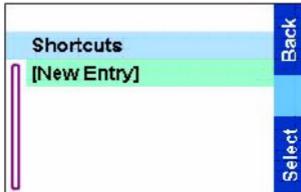
Use shortcuts to access frequently used menu items.

From the main menu, select

**More > Shortcuts.**

The display shows the shortcut list.

You can access a shortcut by pressing **Menu** button and then the respective numeric key.



### *Creating Menu Shortcut*

For example, let's create a shortcut to the All Tones options.

1. From the main menu, select **Menu > Setup > Tones**, then highlight **All Tones**.
2. Press and hold the **Menu** button until a confirmation screen appears. Press **Yes** to confirm.
3. The first free position is assigned as a shortcut key. A confirmation screen appears. Press **Done** to confirm.

### *Editing Shortcuts*

1. From the main menu, select **More > Shortcuts**.
2. Scroll to the shortcut you wish to edit.
3. Press the **Menu** button and select **Edit**.
4. After a few seconds, you will be prompted to confirm the newly created shortcut. The first free position is assigned as a shortcut key. Press **Yes** to confirm. Press **No** to cancel.

If the number is already assigned as a shortcut for another option, you will be asked to replace the current shortcut number with a newly created one.

## ***Deleting a Shortcut***

1. From the main menu, select **More > Shortcuts**.
2. Scroll to the shortcut you wish to delete.
3. Press the **Menu** button and select **Delete**. Press **Yes** to delete a shortcut. Press **No** to cancel.

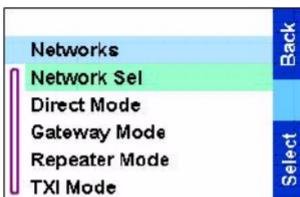
## ***Deleting All Shortcuts***

1. From the main menu, select **More > Shortcuts**.
2. Press the **Menu** button and select **Delete All**. Press **Yes** to delete a shortcut. Press **No** to cancel.

## **Networks**

From the main menu, select **More > Networks**.

This sub-menu allows you to select the network your CM5000 registers to, and what mode it operates on.



### ***Selecting Home Only Network Registration***

From the main menu, select **More > Networks > Networks Sel > Home Only**.

Selecting this sub-menu causes your CM5000 to recognise the first network on the allowed network list only and to register to it.

### ***Using the Select Net Registration***

If configured by your Service Provider, this sub-menu allows you to select manually the network from the allowed network list you want your CM5000 to be registered to.

1. From the main menu, select **More > Networks > Networks Sel > Select Net**.
2. The list of the allowed networks is displayed. Scroll to the desired network.

A network may have an alias. Press the **Menu** button to view the network ID. Then press **Select**.

3. Return to the Home display. The display shows the network ID or alias.

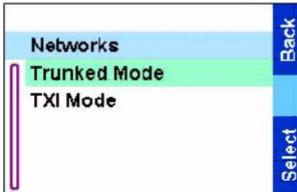
### **Selecting Trunked Mode**

This sub-menu allows you to select the mode your CM5000 will be operating on.

To set up your operating mode:

1. From the main menu, select **More > Network > Trunked Mode**.

2. The CM5000 switches to Trunked Mode.



### **Selecting Direct Mode**

This sub-menu allows you to select the mode your CM5000 will be operating on.

To set up your operating mode:

1. From the main menu, select **More > Networks > Direct Mode**.

2. The CM5000 switches to Direct Mode.



### **Selecting Gateway Mode**

This sub-menu allows you to select the mode your CM5000 will be operating on.

To set up your operating mode:

1. From the main menu, select **More > Networks > Gateway Mode**.

2. The CM5000 switches to Gateway Mode.



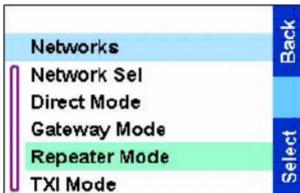
## Selecting Repeater Mode

This sub-menu allows you to select the mode your CM5000 will be operating on.

To set up your operating mode:

1. From the main menu, select **More > Networks > Repeater Mode**.

2. The CM5000 switches to Repeater Mode.



## Setting Transmit Inhibit (TXI) Mode

This mode should always be set before entering areas where transmission is prohibited, e.g. in hospitals or in potentially explosive areas.

To activate the TXI Mode:

1. From the main menu, select **More > Networks > TXI Mode**.
2. Select **Activate**.

The CM5000 will sound the “Transmit Inhibit” tone. The display shows **TXI Mode** in the first row, and the solid amber LED indicates the TXI Mode.



*All menu items which cause transmitting are blocked in TXI Mode. It is not possible to change the group.*

To deactivate the TXI Mode, e.g. after you have left the area where transmission is prohibited:

1. From the main menu, select **More > Networks > TXI Mode**.
2. Select **Deactivate**.

The CM5000 sounds the “Transmit Inhibit” tone and exits TXI.



## Location

To enter the location sub-menu, press the **Menu** button and select **More... > Location**:

**Position** — provides the actual position information:

This displays the following information about the last time your location was calculated (if available):

- The **time** the location was last calculated
- The **latitude** expressed in degrees, minutes, and seconds
- The **longitude** expressed in degrees, minutes, and seconds
- The **number of satellites** used to calculate the location. In general, more satellites make for better accuracy. The maximum is twelve satellites.

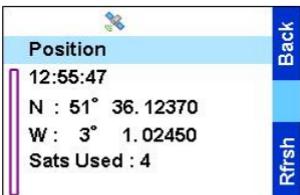
**Interface** — allows you to enable/disable the GPS location service.

**Test Page** — provides detailed position information.

This displays the following information (if available):

- **Position**

- > The **time** the location was last calculated.
- > The **latitude** expressed in degrees, minutes, and seconds.
- > The **longitude** expressed in degrees, minutes, and seconds.
- > The **antenna height**.



- > The **direction** of travel.
- > The **horizontal speed**.
- > The **number of satellites** used to calculate the location.

- **Satellites**
  - > The satellite **number**
  - > The satellite **status**
  - > The satellite **signal strength**
- **Version**
  - > The GPS module **software version**.

Scroll to your selection and press **Select** to access the next display.

This estimate of accuracy of the calculated location is only a very rough estimate and may vary substantially from the actual accuracy of the approximate location information reported.

# Messages

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## General

The messaging feature lets you:

- send short text messages (free text or according to user defined or predefined templates),
- send status messages,
- receive messages.

A status is a number corresponding to a pre-programmed message in a list your group recognises. A text message is a short text containing up to 140 characters. Each message is stamped with the date and time it was left in the inbox.



*If configured by your Service Provider it is only possible to send a message to a private number that is stored in the Contacts list.*

## Entering the Messages Sub-menu

From the main menu, select

### Messages.

The sub-menu allows you read text messages, send text messages, and send status messages.

Scroll to your selection and press **Select** to access the next display.

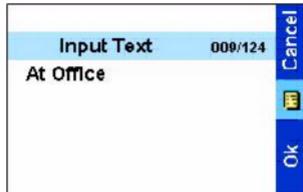


## Creating a Message

1. From the main menu, select **Messages > New Message**.  
An empty screen will open.

2. Type/edit your message using the keypad.

Press the **Menu** button. Select **Store** to add your message to the template list. The number assigned to the message is the lowest free number.



## Sending the Message

1. From Input Text display press **Ok**.

- If set up by your Service Provider you have the option to send the message to a private number or a talkgroup.
- Otherwise select the mail recipient of your choice from the contact list or enter the address directly.



2. Select **Send** to send the message.

The display will show one of the following delivery reports:

- **Message Delivered** — to indicate that the message was successfully sent and received.
- **Message Failed** — the message was not received.

After sending the message, your CM5000 will return to the templates list or to the message editor screen.



*It is recommended to wait for the message acknowledge before sending a new message.*

## Using the Inbox

The inbox list contains new or old incoming text messages. The inbox list can contain 20 messages at any time.

## Inbox Icons

The following icons indicate the status of messages in the Inbox.

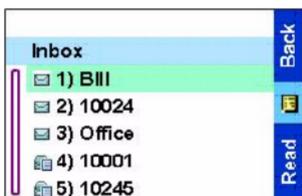
Inbox Icon	Description
	<b>Unread (New) Message</b> Indicates that you have not read the message yet.
	<b>Read (Old) Message</b> Indicates that you have read the message.
	<b>Sender Information in Message View</b> Indicates sender information (name or number).
	<b>Time and Date Stamp in Message View</b> Indicates the time and date of message arrival.

## Entering the Inbox

From the main menu, select **Messages > Inbox**.

The status of the list is displayed for a few seconds:

- **No New or Old Messages** — the screen returns to the previous display within a few seconds.
- **Inbox Info** — press any key or wait for a few seconds. The display shows messages list.



## Reading a Message in the Inbox

1. Scroll to the message.
2. Press **Read**.

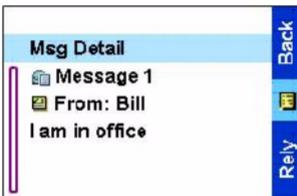
## New Message Received

If you press **Back**, you dismiss the message. You can access the message later from the inbox.

1. Select **Read** to read the entire message. Reading a new text message changes its state from New to Old. The read

message is kept in the Inbox.

2. The display shows the incoming message, its number, sender, and the first line of the text message.



## Handling Messages

When in the inbox or after reading the message, press the **Menu** button and select one of the following options:

- Select **Store** and press **Select** to store the message as a template in the template list.
- Select **Delete** and press **Yes** to delete the message. When the display shows “**Deleted: Message n**”, the current message is deleted from the Inbox. The display shows the next message (if any) or the message list.
- Select **Delete All** and press **Yes** to delete all the messages. When the display shows “**Deleted: All Messages**”, all the messages are deleted from the Inbox. The display shows the next message (if any) or the Messages sub-menu.
- Select **Reply**. This invokes the edit screen. Edit message text and press **Ok** to reply to the message originator.
- Select **Forward**. This invokes the edit screen. The old message body serves as the default message. Press **Ok** to forward the message to selected target. See “**Sending the Message**” on page 63.
- Press **Back** to return to the previous display.

The described options also applies to all the messages that were sent.

To view the list of messages sent from your terminal select **Menu > Messages > Outbox**.



## User Defined Templates

The user defined mail templates are received, new, sent or programmed messages that are stored in the templates list and may be used for sending messages.

Templates
1) Template 1
2) Template 2
3) Template 3
4) Template 4
5) Template 5

1. From the main menu, select **Messages > Templates**. The first template in the template list is displayed.



*It is possible that the templates numbers are not consecutive.*

2. In the templates list, scroll to the template you want to use. Press the **Menu** button and select one of the following options:

- **View** to view the message in the template
- **Edit** to edit the message in the template for your needs. Press the **Menu** button to enter the Editor Menu. Select **Store** to save the edited template.
- **Delete** and press **Yes** to delete the template. When the display shows “Deleted: Template n”, the current template is deleted from the Inbox. The display shows the next template (if any) or the templates list.

3. Send the template. See “Sending the Message” on page 63.

## Predefined Templates

Predefined mail templates are templates that are programmed into your CM5000 by your Service Provider. You are allowed to perform limited edit operations of the predefined template and to send it, but you

Predefined
1) At office
2) In busy
3) I will return
4) Predefined 1
5) Predefined 2

will not be able to store the edited template or erase it from the predefined template list.

From the main menu, select **Messages > Predefined**.

The first template in the predefined template list is displayed (if no predefined template exist, the message **No Predefined** will be displayed).

## Sending a Predefined Template

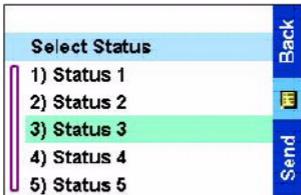
1. Press **Send** or **PTT** to send the message.
2. The display will show one of the following delivery reports:
  - **Message Delivered** — to indicate that the message was successfully sent and received.
  - **Message Failed** — the message was not received.
3. After sending the message, your CM5000 will return to the predefined template list or to the message editor screen.



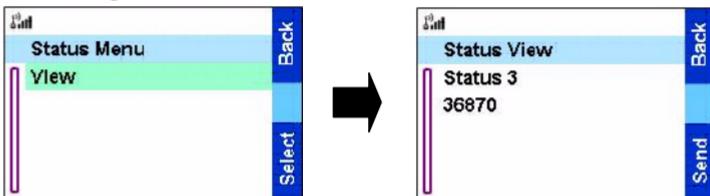
*It is recommended to wait for the message acknowledge before sending a new message.*

## Sending a Status Message

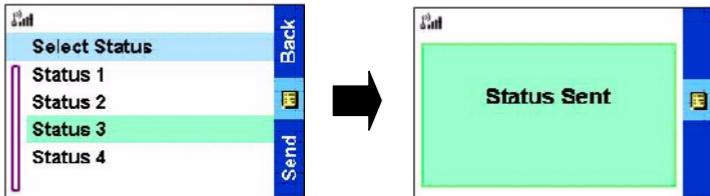
1. Switch to the desired talkgroup, to which you want to send a status message.
2. From the main menu, select **Messages > Send Status**.
3. In this example, Status 3 is the last sent status. If you wish to send a different status, scroll to your selection in the list of pre-programmed statuses, or key the status number. To stop scrolling, press **Back**. The display returns to the select status list.
4. Press **Menu** button and then select **View** to view the status



message. Press **Back** to return to the status list.



5. Press **Send** to send the status message.



## Selecting the Text Entry Mode

Text entry modes make it easy for you to enter names, numbers, and messages.

In the text entry screen, select the **Menu** button >**Entry Mode**, and then select one of the following modes:

- **Primary** — for entering alphanumeric characters
- **Numeric** — for entering numbers only
- **Symbol** — for entering symbols only
- **Secondary** — for entering alphanumeric characters. (This mode is optional and you have to add it to the list.)

In the text entry screen, you can also press **#** key repeatedly to change to Primary, Numeric, Symbol, or Secondary (if you have set it up).

## Adding Secondary to the List of Text Entry Modes

Secondary is convenient when you use one language, and sometimes wish to switch to another one.

This mode appears in the list only if you set it up first via the **Menu** button > **Entry Setup**.

**None** is the default programming from factory and indicates no secondary entry mode is selected.

## Selecting the Text Entry Method and Language

There are two text entry methods:

- **TAP** — Enter letters, numbers and symbols by pressing an alphanumeric key one or more times.
- **iTAP** — Let the terminal predict each word as you press an alphanumeric key.

You can use these methods in the languages programmed in the terminal.

In the text entry screen, select the **Menu** button > **Entry Setup**, and then change to one of the methods and its related language (for example: TAP English).

## Icons

In the text entry screen, icons tell you which text entry mode and method you are using. A character counter icon indicates the number of entered characters.

Primary Icons	Secondary Icons	Description
abc 1	abc 2	TAP — no capitals
Abc 1↑	Abc 2↑	TAP — capitalise next letter only
ABC 1↑	ABC 2↑	TAP — all capitals
abc ☰	abc ☱	iTAP — no capitals
Abc ☰	Abc ☱	iTAP — capitalise next letter only
ABC ☰	ABC ☱	iTAP — all capitals

Numeric Icon	Description
123	Enter numbers.
123 ☰	Enter numbers in iTAP method.

Symbolic Icon	Description
@	Enter punctuation and symbols.

## TAP Display

Press a key and the display will show the following information:

- the icon indicating the current text writing method—see icons

- the main text entry area that will hold your message after you selected the desired words

## iTAP Display

Press a key and the display will show the following information:

- the icon indicating the current text writing method — see icons
- the main text entry area that will hold your message after you selected the desired words
- a row of suggested characters/words will be displayed.

## Keys Usage

*List of Keys and Characters in Alphanumeric Mode (TAP/iTAP)*

- Except for keys 0 and 1, the top line for each key shows numbers and upper case characters, and the lower line shows numbers and lower case characters.
- Press and hold any numeric key to enter Numeric mode.
- To exit Numeric mode in iTAP, select the word.
- To exit Numeric mode in TAP, press and hold any numeric key.

### **List of Keys and Characters in Alphanumeric Mode:**

Key	Alphanumeric Mode (TAP/iTAP)
<b>0</b>	Press to cycle through single shift, caps lock, and lower case.
<b>1</b>	. / \ _ - : ~ 1 0 ! ? , @ ' ; ( ) & " £ ¢ % \$ ¥¤ + x * [ ] = > < # §
<b>2</b>	A B C 2 a b c 2
<b>3</b>	D E F 3 d e f 3

Key	Alphanumeric Mode (TAP/iTAP)
<b>4</b>	G H I 4 g h i 4
<b>5</b>	J K L 5 j k l 5
<b>6</b>	M N O 6 m n o 6
<b>7</b>	P Q R S 7 p q r s 7
<b>8</b>	T U V 8 t u v 8
<b>9</b>	W X Y Z 9 w x y z 9

#### **List of Keys and Characters in Numeric Mode:**

Key	Numeric Mode
<b>0 to 9</b>	<ul style="list-style-type: none"> <li>• Press to enter digit at insertion point.</li> <li>• Press and hold any numeric key to enter TAP alphanumeric mode.</li> <li>• To exit TAP alphanumeric mode, press and hold any numeric key.</li> </ul>

## List of Keys and Characters in Symbol Mode:

Key	Symbol Mode
0	+ - x * / \ [ ] => < # §
1	. ? ! , @ _ & ~ , ; “ - ( ) ‘ ڦ ۾ % £ \$ ¥ □
2	@ _ \
3	/ , ;
4	“ & ‘
5	( ) [ ] { }
6	ڦ ۾ ~
7	< > =
8	£ \$ ¥ □
9	# % *

## Other Keys:

Key	Description
Any numeric key	<ul style="list-style-type: none"><li>• In TAP press any key to reject word completion and continue with text entry. A new completion will be displayed, if available, after the time-out for TAP expires.</li><li>• Press and hold to enter Numeric mode from TAP or iTAP alphanumeric</li></ul>
*	<ul style="list-style-type: none"><li>• Press to insert a space.</li><li>• In TAP press to dismiss a word completion and insert a space.</li><li>• Enter a newly created word into the user dictionary.</li><li>• Press and hold to enter a carriage return.</li></ul>
#	<ul style="list-style-type: none"><li>• Press once to cycle through all entry modes (symbolic, numeric, primary and secondary if configured).</li><li>• Press and hold to return to the default entry mode.</li></ul>
Select	Press to select the highlighted choice and place it in the main text area.
Delete	<ul style="list-style-type: none"><li>• Press once to delete the last entered character.</li><li>• Press and hold for long to clear the entire main text area.</li></ul>
	<ul style="list-style-type: none"><li>• Press to navigate up one line in a long text (several lines). Press and hold to repeat.</li><li>• In TAP press to reject word completion and scroll up.</li></ul>
	<ul style="list-style-type: none"><li>• Press to navigate down one line in a long text (several lines). Press and hold to repeat.</li><li>• In TAP press to reject word completion and scroll within the text area.</li></ul>
	<ul style="list-style-type: none"><li>• Press to navigate to the left. Press and hold to repeat.</li><li>• In TAP, if a word completion is available, press to reject the completion.</li></ul>
	<ul style="list-style-type: none"><li>• Press to navigate to the right. Press and hold to repeat.</li><li>• In TAP if a word completion is available, press to accept the word.</li></ul>
Menu	Opens the Context Sensitive Menu if a context sensitive menu is active.

## Writing in iTAP Alphanumeric

For example, let's write "David 232!".

1. In the text entry screen, select the **Menu** button > **Entry Setup**, and then change to **iTAP English**. Press **Back** to return to the text entry screen.
2. In the text entry screen, select the **Menu** button > **Entry Mode**, and then select **Primary**.
3. Press **3** key. The alternative row opens up and shows D E F 3. Continue entering the letters by pressing one key for each letter. The row shows the suggested words. Scroll the alternative row to the right until you reach David.
4. Press **Select** to select the word. It is displayed in the main text area.



*Automatic shift to upper case is used at the beginning of a message, after punctuation followed by space, or for the first letter of a word created as a new Contact entry.*

5. Enter the numbers by pressing one key for each letter. The row shows the suggested numbers. Scroll the alternative row to the right until you reach the required combination.
6. To enter the symbol, press **1** key. The row shows the suggested symbol. Scroll the alternative row to the right until you reach the required symbol. Press **Select** to select the numbers. The numbers and symbol are displayed in the main text area.

## Word Locking

You can use the partial or full word-lock feature to add words that are not in the dictionary and/or to narrow down the list of alternates to those that begin with a particular prefix.

1. Try to enter the word. Scroll the alternate line for a word option. Each option is successively highlighted and partially locked.
2. Enter the second part of the word. The first part remains unchanged (locked). The newly entered letters will be highlighted and then locked while you scroll to the next

word option.

3. Press \* key. The word is placed in the text area with a space and automatically added to the dictionary.

## Writing in Numeric Mode

1. Press # key to scroll to numeric mode. (OR, press and hold any numeric key to enter Numeric mode.)
2. Press the relevant numeric keys to insert the digits.

## Writing in Symbol Mode

1. Press # key to scroll to symbol mode.
2. Press 1 key. A series of symbols and punctuation appear on the screen.
3. Scroll to the symbol and press Select.

## Writing in TAP Alphanumeric

1. In the text entry screen, select the **Menu** button > **Entry Setup**, and then change to TAP and its related language. Press **Back** to return to the text entry screen.
2. In the text entry screen, select the **Menu** button >**Entry Mode**, and then select **Primary**.
3. Press the key labelled with the desired character, once for the first character, twice for the second, and so on. For example, to enter "s", press key 7 four times. To enter "7", press the key five times. If you do not press a key for a few seconds, the character is accepted, and the cursor moves to the next position.

## Adding Words to the Dictionary

Each language comes with its own dictionary. You can create words (including alphanumeric abbreviations). Once you create these words and added a space, they will be automatically stored in the dictionary and will appear as choices whenever you press the same key combination in the future.

## What to do if...

---

Your CM5000 flashes the following messages:

Messages	Message Description
...-Rcvd	Call received but not answered, or rejected
Attachment Failed	The CM5000 could not perform talkgroup attachment. The CM5000 keeps on trying. If it does not succeed, try another talkgroup.
Authenticate Failure	The CM5000 could not register on an Authenticated system (for example, the Authentication key is incorrect, or Authentication is disabled in the CM5000).
Call Cancelled	Called CM5000 cancelled the call.
Call Ended	<ul style="list-style-type: none"> <li>• Faulty channel. Please try later.</li> <li>• Called CM5000 ended the call.</li> </ul>
Call Preempted	Channel being used for priority.
Emgcy In Use: Wait For Mic	The Hot Microphone feature is active, but the channel transmit grant has been given to another Emergency Call on the same talkgroup. The CM5000 microphone is not active during this time, but the CM5000 will automatically try to regain talk permit after a predetermined time.
Emgcy Mic Ended	The Hot Microphone timer has automatically expired, or the user has pressed the PTT button to cancel the Hot Microphone feature.
Emgcy Mic On	The Hot Microphone feature is active, and the CM5000 is automatically transmitting hands free emergency audio.
Empty Entry	The speed number you dialled does not exist, or the number exists but the group is non-selectable.
Faulty Unit Error...	Self-test failed. An operational fault has been detected with your CM5000. Record the error number. Turn your CM5000 off and contact service.

Messages	Message Description
Group already exists	The group you are attempting to add already exists in the My Groups folder.
Insufficient Visible Data	Your terminal is in the process of determining your location. This may take several minutes to complete.
Insufficient Visible Satellites	Your terminal is in the process of determining your location. This may take several minutes to complete.
Invalid ID	The entered number is not valid.
Invalid Shortcut position	The entered number is not valid.
Limited Service	Emergency Calls, Emergency Alarms and mobility operations (e.g.: group attachment) are allowed. All other incoming and outgoing call and data services are blocked.
List Empty	There are no programmed entries in the scrolling list. Type the entry.
List not Attached	All talkgroups in the scan list are not attached.
List Partially Attached	The scan list is active, but not all talkgroups are attached to it.
Message Delivered	Indicates mail successfully delivered.
Message Failed	Indicates mail delivery failure.
↖ ↘ Mode No Service	The CM5000 is outside coverage. Return to coverage.
My Groups is empty	You cannot view/delete groups when the My Groups folder is empty.
My Groups is full	You are not allowed to add a group to the My Groups folder as it already contains the maximum allowed number of groups.
Network Trouble	Network problems. Please try again later.

Messages	Message Description
No Answer	The called party does not answer.
No Entries	This message is displayed when accessing an empty list.
No Group	Attachment failed. CM5000 detached from current talkgroup. Please wait until the CM5000 attaches again to the current talkgroup.
No Group	<ul style="list-style-type: none"> <li>Displayed when you are out of the normal coverage area of your selected talkgroup. Please select a new talkgroup that is valid for your working location.</li> <li>Indicates a favourite group was removed from the My Groups folder.</li> </ul>
No List	The Network List is empty.
No New or Old Messages	Indicates there are no new or old messages in the Inbox.
No Selected Scan List	You selected an empty Network List (No List).
No Service	The CM5000 is out of coverage.
Not Allowed To Start Call	You are not allowed to dial a number which is not in the Address Book - if set up by your Service Provider.
Not Allowed To Transmit	<p>Release PTT and try again later.</p> <ul style="list-style-type: none"> <li>You are not allowed to send a text message or a status message to a number which is not in the Address Book - if set up by your Service Provider.</li> </ul>
Only One Entry	There is only one programmed entry in the scrolling list.
Overcharging	The CM5000 turns off. Remove CM5000 from charger.
Overheating	The CM5000 turns off. Keep it turned off for five minutes.
Party Busy	The called CM5000 is busy.

Messages	Message Description
Party Not Available	<ul style="list-style-type: none"> <li>The called CM5000 is out-of-range. Please try again later.</li> <li>The called CM5000 is turned off. Please try again later.</li> </ul>
Please Try Again	The CM5000 could not place the call.
Please Wait Connecting	A message during startup.
Registration Failure	The CM5000 could not register within the system. Please try again later.
Request Timed Out	Triggered by timer expiring - request was sent out properly but reply was not received while no network error was detected.
Service Denied	Invalid number. Call your Service Provider.
Service Not Available	This service is not available on the current network.
Service Restricted	This service has been restricted by your Service Provider or it has not been purchased.
Speaker Volume bars	Use Rotary knob to adjust volume level. (Rotary knob is programmed to "Dual" or "Volume").
Talkgroup ...Added	Group name added to the favourite talkgroup folder.
TG ... cannot be deleted	You cannot delete this group from the favourite talkgroup folder. Your Service Provider has set this group to non-deletable.
Try Again Later	The requested service is temporarily unavailable.
Unit Disabled	Check with Service Provider.

Messages	Message Description
Unit is OK Warn...	Self-test error. A minor fault has been detected with your CM5000. The CM5000 is still fully operative. Should this error recur, note the error code and contact service.
Unit Not Attached	The CM5000 could not attach to the system. The talkgroup may not be defined in the system. Please try another group.

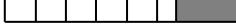
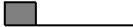
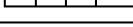
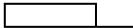
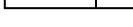
# Tones

---

<input type="checkbox"/> = High Tone; <input checked="" type="checkbox"/> = Low Tone		
Description	Type	Repeated
<b>Idle</b>		
• Back to Home display • Back to coverage • Back to full service	<input type="checkbox"/> _____	Once
Clear to send	<input type="checkbox"/> _____	Once
• Bad key press	<input checked="" type="checkbox"/> _____	Once
• Good key press • CM5000 self-test fails at power up • From out-of-service to in-service	<input type="checkbox"/> _____	Once
<b>In Call</b>		
• Call clear warning • Call modified	<input checked="" type="checkbox"/> _____	Once
Call waiting tone while Phone or Private Call are pending	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> _____	Every 6 seconds, until a call is terminated.
Data Connected or Data Disconnected.	<input type="checkbox"/> _____	Once
Talk Permit sounds upon pressing the PTT.	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> _____  <input checked="" type="checkbox"/> _____	Once (Normal Tone)  Once (Short Tone)
Talk Permit without gateway sounds upon pressing PTT. The tone indicates the gateway is no longer available.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> _____  <input checked="" type="checkbox"/> _____	Twice  Once
• Talk Prohibit • System busy • Called terminal not available or busy.	<input checked="" type="checkbox"/> _____	Until you release the PTT

<input type="checkbox"/> = High Tone; <input checked="" type="checkbox"/> = Low Tone		
Description	Type	Repeated
• Call disconnected or failed due to network • Wrong number dialled.	<input checked="" type="checkbox"/> _____	Once
DMO Entering	<input type="checkbox"/> _____	Once
DMO Exiting	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> _____	Once
Phone ring back (sending)	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> _____	Every three seconds, until the called user answers or call is rejected.
Phone busy	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> _____	Every 0.5 seconds
Status message sent to the dispatcher or failed.	<input type="checkbox"/> <input type="checkbox"/> _____	Twice
<b>Incoming Calls</b>		
Status message acknowledged by the dispatcher.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> _____	Four times
Your CM5000 received a Group Call without gateway. (setup only)	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> _____	Once
High Priority Group Call received	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> _____	Once
Emergency Alarm sent or received	<input type="checkbox"/> <input type="checkbox"/> _____	Twice
Emergency Alarm failed	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> _____	Four times
Emergency Call received	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> _____	Once
Phone ring (reception) Full-duplex Private Call	According to the Ring Style sub-menu setting.	Until you answer or the call is rejected.
Private Call received	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> _____	Until the call is answered

= High Tone;  = Low Tone

Description	Type	Repeated
Private Call ringing to the caller		Until the call is answered
Half-duplex Private Pre-emptive Priority Call (PPC) ring.		Every 4 seconds until the call is answered or rejected.
Full-duplex Private PPC ring.		Every 4 seconds until the call is answered or rejected.
Limited Service		Once upon entering limited service
New Mail Received		Once
New Group Call		Once
<b>General</b>		
Volume setting (earpiece, keypad, speaker)		Continuous
Volume setting (Ringer)		While setting the volume
Transmit Inhibit (TXI)		Once
DTMF (0-9, #, *) during the call	DTMF 	Continuous, until the user releases the key

# TETRA/UHF Analogue Gateway Mode

---

## General

The CM5000 allows you to establish gateway connection between the TETRA network and an UHF analogue system.



*Each time an unencrypted analogue radio user transmits to the TETRA network an audible warning tone is sent to TETRA users in group.*

## Entering TETRA/UHF Analogue Gateway Mode

The CM5000 must be connected to an analogue radio through an analogue radio interface.

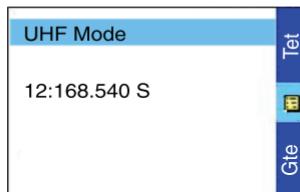
Choose the required TMO talkgroup before entering the analogue/digital mode.



*The CM5000 can switch to the analogue/digital mode only in group mode.*

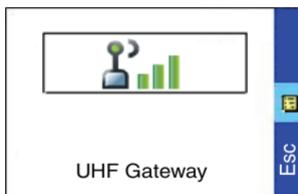
To enter the analogue/digital gateway mode:

1. From the Home display press **Menu** button and then **9** alphanumeric key. The display shows the current UHF channel selected on UHF mobile.
2. Select the required UHF channel using up/down navigation keys.
3. Select **Gte** to enter the analogue/digital gateway operation Select **Tet** to return to TMO or DMO mode.



## Exiting TETRA/UHF Analogue Gateway Operation

To exit the analogue/digital gateway mode, from the UHF Gateway display select **Esc**.



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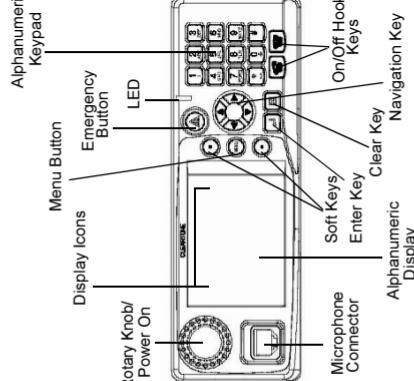
## Cleartone CM5000 Quick Reference Guide

### Turning the CM5000 On/Off

To power the CM5000 on/off, press and hold the **Knob**.

### Using the CM5000 Menu System

- To enter the menu, press the **Menu** button.
- To scroll through the menu, press **○/○**.



### Making a DMO Group Call

Enter DMO. Navigate to the desired group. Press **Select** soft key (if configured). Press and hold **PTT**. Wait for the talk permit tone (if configured) and talk. Release **PTT** to listen.

### Making an Emergency Group Call

Press and hold the Emergency button. Press and hold **PTT**. Wait for the talk permit tone (if configured) and talk. Release **PTT** to listen. Using "Hot Mic" feature, wait for the **Emergency Mic On** message to appear on the display and talk without pressing **PTT**.

To exit Emergency Mode, press and hold **Exit** soft key.

### Making a Private Call

From the Home display select Private mode using **○** or **○**. Dial a number. Press and release **PTT**. Ringing sounds. Called party answers. Wait for the called party to finish speaking. Press and hold **PTT**. Wait for the talk permit tone (if configured) and talk. Release **PTT** to listen. Press **□** to terminate call.

### Selecting Trunked/Direct/Gateway/Repeater Mode Operation

- Switching to Gateway or Repeater modes is possible in TMO only
- From the Home display press **Optns**, select **Trunked Mode/ Direct Mode/Gateway Mode/ Repeater Mode**.

From the Home display navigate to the desired group. Press **Select** soft key (if configured). Press and hold **PTT**. Wait for the talk permit tone (if configured) and talk. Release **PTT** to listen.

## Answering a Call

Your CM5000 switches to the incoming call and alerts you of the incoming call. To answer the call, press **PTT** to answer the call. To reject or end the call press .

## Sending a Status Message

Select the desired group, then press the **Menu** button and select **Messages > Send Status**. Select status and press **Send**.

## Sending a New Message

Press the **Menu** button and select **Messages > New Message**. Write your message. Select **Send**. Select your mail recipient or enter number. Select **Send**, or press **PTT** to send the new message.

## Tips & Tricks

### • Backlight Control

You can either disable backlight (covered operation) or have it automatically turned on, by any key press.

## Menu Shortcuts

You can easily access any menu item, by pressing the **Menu** button and a numeric key. (No delay between the **Menu** button and the key!)

You can ask your Service Provider to program menu shortcuts.

You may also define a new shortcut: enter the menu item, press and hold the **Menu** button, and follow the instructions in the display.

### • Group Audio Control

You can control audio level for any Private or Group Call. However, you can define within the menu to have all Group calls always loud (**Menu** button > **Setup > Group Audio**).

### • Unified Contact List

You can keep several numbers (Private, Mobile, Home, Work, PABX, Other) for the same person under the same contact name.

### • Text Size

You can see the text on the display in two sizes: **Normal** or **Zoomed** (**Menu** button > **Setup > Display > Text Size**).

### • “My Groups” Folder

You can select any group (TMO or DMO) and add it to your personal folder.

In the Home display, press  to quickly access your “My Groups” folder.

### • PIN Protect

To protect access to network operation, from the main menu, select **Security > PIN Protect**.





[www.motorola.com/tetra](http://www.motorola.com/tetra)

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